We claim:

1. A nucleic acid molecule encoding a protein with the function of a wheat isoamylase, selected from the group consisting of
   (a) a nucleic acid molecule encoding a protein comprising the amino acid sequence shown under Seq ID No. 3,
   (b) a nucleic acid molecule comprising the nucleotide sequence shown under Seq ID No. 2 or a part thereof or a ribonucleotide sequence corresponding hereto;
   (c) a nucleic acid molecule which hybridizes with a nucleic acid molecule mentioned under (a) or (b) or is complementary thereto, and
   (d) a nucleic acid molecule whose nucleotide sequence deviates from the sequence of a nucleic acid molecule mentioned under (a), (b) or (c) owing to the degeneracy of the genetic code,

   the nucleic acid molecule mentioned under (a), (c) and (d) having a homology of over 90% with Seq ID No. 2.

2. A nucleic acid molecule as claimed in claim 1, which is a DNA molecule.

3. A DNA molecule as claimed in claim 2, which is a cDNA molecule.

4. A nucleic acid molecule as claimed in one or more of claims 1 to 3 containing regulatory elements.

5. A nucleic acid molecule as claimed in claim 1, which is an RNA molecule.

6. A nucleic acid molecule which specifically hybridizes with a nucleic acid molecule as claimed in any of claims 1 to 5 and has a homology of over 90% with Seq ID No. 2.

7. A nucleic acid molecule as claimed in claim 6 which, is an oligonucleotide with a length of at least 15 nucleotides.

8. A vector containing a DNA molecule as claimed in any of claims 1 to 5.

9. A vector as claimed in claim 8, wherein said nucleic acid molecule is linked in sense orientation to regulatory elements which ensure transcription and synthesis of a translatable RNA in pro- or eukaryotic cells.

10. A vector as claimed in claim 8, wherein said nucleic acid molecule is linked in sense orientation to regulatory elements which ensure the synthesis of an untranslatable RNA in pro- or eukaryotic cells.

11. A vector as claimed in claim 8, wherein said nucleic acid molecule is linked in antisense orientation to regulatory elements which ensure the synthesis of an untranslatable RNA in pro- or eukaryotic cells.

12. A host cell which is transformed with a nucleic acid molecule as claimed in one or more of claims 1 to 5 or a vector as claimed in one or more of claims 8 to 11 or which is derived from such a cell.

13. A process for the preparation of a protein as claimed in claim 13, wherein a host cell as claimed in claim 12 is cultured under conditions which permit said protein to be synthesized and said protein is isolated from the cultured cells and/or the culture medium.

14. A process for generating a transgenic plant cell, wherein
a) a nucleic acid molecule as claimed in one or more of claims 1 to 5 or
b) a vector as claimed in one or more of claims 8 to 11
is integrated into the genome of a plant cell.

15. A transgenic plant cell which has been transformed with a nucleic acid molecule as claimed in one or more of claims 1 to 4 or one or more vector as claimed in claim 8 to 11 or which is derived from such a cell.

16. A process for generating a transgenic plant cell, wherein

a1) a nucleic acid molecule as claimed in one or more of claims 1 to 5 or

a2) a vector as claimed in one or more of claims 8 to 11

is integrated into the genome of a plant cell and

b) an intact plant is regenerated from said plant cell.

17. A plant containing a plant cell as claimed in claim 16.

18. A plant as claimed in claim 18, which is a crop plant.

19. A plant as claimed in claim 19, which is a starch-storing plant.

20. A plant as claimed in claim 20, which is a monocotyledonous plant or maize

21. A plant as claimed in claim 21, which is a barley, rye or wheat plant.

22. A propagation material of a plant as claimed in one or more of claims 18 to 22.

23. The use of a plant cell as claimed in claim 16, a plant as claimed in one or more of claims 18 to 22 or of propagation material as claimed in claim 23 for the production of starch.